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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,262	10/20/2003	Min-Chieh Chou	64,600-126	2887
28970	7590	04/26/2005		
PILLSBURY WINTHROP SHAW PITTMAN LLP 1650 TYSONS BOULEVARD MCLEAN, VA 22102			EXAMINER NGUYEN, JIMMY	
			ART UNIT 2829	PAPER NUMBER

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,262

Applicant(s)

CHOU ET AL.

Examiner

Jimmy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 7, 13, 15, 17 - 32 is/are pending in the application.
- 4a) Of the above claim(s) 26 - 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 13, 15, 17 - 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 26 – 32 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the new set of claims 26 – 32 are directed to a method of making probe pins which is nothing to do with the probe pins structure as claims originally

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 26 – 32 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Argument

2. Applicant's arguments with respect to claims 1 – 3, 5, 7, 13, 15 and 17 - 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4, 5, 7, 13, 17 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Boyette Jr et al (US 6,023,171).

As to claims 1, 13, Boyette Jr et al disclose (fig 2) a probe module comprising:
a probe base (26);
a plurality of probe pins (28, 30) supported by probe base (26), each of the probe pins (28,30) comprises an elongated arm body (32), wherein at least part of the elongated arm body (32) is bonded (by screw 27) with the probe base (26); and
a circuit interconnect device (22, fig 1) for connecting said plurality of probe pins (28 , 30) to an inspection apparatus.

As to claims 2, 4, Boyette Jr et al disclose (fig 2) the probe module of claim 1 wherein each of said plurality probe pins (28, 30) further comprises a probe pin head (44) carried said probe pin body (32) and generally tapered probe pin tip (28, 30) provided on said probe pin head.

As to claims 5, 20, Boyette Jr et al disclose (fig 2) each of the plurality of probe pins (28,30) further comprises a probe pin head (44) supported by the probe pin

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body (32) and generally semi-spherical probe pin tip (28, 30) provided on the probe pin head (44).

As to claims 7, 17, Boyette Jr et al disclose (fig 2) a compression arm (the upper portion of the body 32) carried by probe base (26) and engaging plurality of probe pins (28, 30).

As to claim 18, Boyette Jr et al disclose (fig 2) a probe pin for a probe module, comprising:

A probe pin body (32) that is elongated and giving at least a portion bonded with a base unit (26);

A probe pin head (44) supported by the probe pin body (32); and

A probe pin tip (28, 30) provided on the probe pin head (44).

As to claim 19, Boyette Jr et al disclose (fig 2) the probe pin tip (28, 30) has a generally polyhedral configuration.

4. Claims 21 – 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazama et al (US 5,798,655).

As to claim 21, Kazama et al disclose (fig 6) a probe module comprising:

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A probe base (the end portion of the pins 25a) having conductive metal trace (the interconnection trace to connect the pin 25a and board 25);

Probe pins (25a) coupled with the conductive metal traces (25); and

A flexible circuit board (25) coupling the probe pins (25a) for testing.

As to claim 22, Kazama et al disclose (fig 6) a probe module comprising:

The probe module wherein the flexible circuit board (25) couples the probe pins (25a) to a testing unit via the conductive metal traces.

As to claim 23, Kazama et al disclose (fig 6) a probe module comprising: a

compression arm (24, the rubber plate that provide the contact pressure force on the pin 25a) configured to engage the probe pins (25a).

As to claim 24 Kazama et al disclose (fig 6) each of the plurality of probe pins

(25a) further comprises a probe pin head having at least semi-spherical.

As to claim 25 Kazama et al disclose (fig 7) the probe pins include an elongated

arm body (27) such that at least a part of the elongated arm body is attached with the probe base.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyette Jr et al (US 6,023,171) in view of Mathieu et al (US 6616966)

As to claims 3,15, Boyette Jr et al disclose everything except for the flexible circuit board provided in electrical contact with the plurality of conductive probe circuit.

On the other hand, Mathieu et al disclose (figs 23 – 26) the probe module of claim 1 wherein said circuit interconnect device (480, fig 23) comprises a plurality of conductive probe circuits (486) provided on said probe base (730A, 730B) in electrical contact with said plurality of probe pins (760A, 760B), respectively, and a flexible circuit board (480) provided in electrical contact with said plurality of conductive probe circuits (486).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to provide the flexible circuit board to the probe module for the purpose of supporting and transmitting the signal from the testing apparatus to the device under test.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is (703) 306-5858. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtiaz Nestor, can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN.
April 20, 2005


VINH NGUYEN
PRIMARY EXAMINER
A.U.-2829
04/25/05